

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

Claims 1-15 (canceled).

16. (new) A method of managing a network system including a first network element connected to a graphical local craft terminal for maintaining the network system and a plurality of network elements which are targets of maintenance, wherein when a second network element is added to the network system or settings of the second network element are changed, said method is enabled to register addresses and change addresses automatically by sending or receiving said addresses between said first network element and said second network element, said method comprising the steps of:

accepting, by said first network element, input of a system Identifier (ID) of said second network element;

assembling, by said first network element, a first Protocol data Unit (PDU) inquiring of an address corresponding to said input system ID;

sending, by said first network element, said first PDU along the network system;

comparing, by each network element of said network elements on the network system, said system ID included in said first PDU with a system ID of said each network element when receiving said first PDU;

sending back, by said each network element, a second PDU including an address of said each network element when said system ID included in said first PDU matches said system ID of said each network element;

getting, by said first network element, said address of said second network element by receiving said second PDU sent back;

sending, by said first network element, a third PDU including a system ID and an address of said first network element to said second network element;

generating, by said second network element, an address management Managed Object (MO) for said first network element based on information of said first network element included in said received third PDU;

sending, by said second network element, a fourth PDU including a system ID and an address of said second network element to said first network element;

generating, by said first network element, an address management MO for a network element added or changed based on information of said second network element included in said received fourth PDU; and

enabling said first network element to be in an accessible state to said second network element.

17. (new) A method for managing a network system according to claim 16, wherein said third PDU includes a system ID of said first network element and said second network element generates said address management MO for said first network element by using an address and a system ID included in said third PDU, and

wherein said fourth PDU includes a system ID of said plurality of network elements added or changed and said first network element generates said address management MO for said plurality of network elements added or changed by using an address and a system ID included in said fourth PDU.

18. (new) A method for managing a network system according to claim 16, wherein said address included in said second PDU is a Network Service Access Point (NSAP) Address, and said address included in said third and fourth PDU is a Presentation Service Access Point (PSAP) address, whereby specification of said MO for said first network element and said MO for second network element are based on specification of Open System Interconnection (OSI).

19. (new) A method for managing a network system according to claim 16, wherein said first or second network element searches whether there is an address management MO corresponding to a network element which sends said third or fourth PDU when receiving said third or fourth PDU, generates a new address management MO if there is not, and generates a new address management MO after deleting existing object if there is, when an address managed by said existing object is different with said address included in said third or fourth PDU as a result of comparison.

20. (new) A method for managing a network system comprising:

a first network element connected to a graphical local craft terminal for maintaining the network system and a plurality of network elements which are targets of maintenance,

wherein when a second network element is added to the network system or settings of the second network element are changed, said method is enabled to register addresses and change addresses automatically by sending or receiving said addresses between said first network element and said second network element, said method comprising the steps of:

accepting, by said first network element, input of an address of said second network element;

assembling, by said first network element, a first Protocol Data Unit (PDU) inquiring a system Identifier (ID) corresponding to said input address;

sending, by said first network element, said first PDU along the network system;

comparing, by each network element of said network elements on the network system, said address included in said first PDU with an address of said each network element when receiving said first PDU;

sending back, by said each network element, a second PDU including a system ID of said each network element when said address included in said first PDU matches said address of said each network element;

getting, by said first network element, said system ID of said second network element by receiving said second PDU sent back;

sending, by said first network element, a third PDU including an address and a system ID of said first network element to said second network element;

generating, by said second network element, an address management Managed Object (MO) for said first network element based on information of said first network element included in said received third PDU;

sending, by said second network element, a fourth PDU including an address and a system ID of said second network element to said first network element;

generating, by said first network element, an address management MO for a network element added or changed based on information of said second network element included in said received fourth PDU; and

enabling said first network element to be in an accessible state to said second network element.

21. (new) A method for managing a network system according to claim 20, wherein said third PDU includes a system ID of said first network element, and said second network element generates said address management MO for said first network element by using an address and a system ID included in said third PDU, and

wherein said fourth PDU includes a system ID of said plurality of network elements added or changed, and said first network element generates said address management MO for said plurality of network elements added or changed by using an address and a system ID included in said fourth PDU.

22. (new) A method for managing a network system according to claim 20, wherein said address included in said second PDU is a Network Service Access Point (NSAP) Address, and said address included in said third and fourth PDU is a Presentation Service Access Point (PSAP) address, whereby specification of said address management MO for first network element and said MO for second network element are based on specification of Open System Interconnection (OSI).

23. (new) A method for managing a network system according to claim 20, wherein said first or second network element searches whether or not there is an address management MO corresponding to a network element which sends said third or fourth PDU when receiving said third or fourth PDU, generates a new address management MO if there is not, and generates a new address management MO after deleting a existing object if there is, when an address managed by said existing object is different with said address included in said third or fourth PDU as a result of a comparison.

24. (new) A network system comprising:
a plurality of network elements which are targets of maintenance and a first network element connected to a graphical local craft terminal for maintaining over the network system,
wherein said first network element comprises:

means to accept input of a system Identifier (ID) of a second network element when said second network element is added to the network system or settings of the second network element are changed,

system ID address change means to assemble a first Protocol Data Unit (PDU) inquiring of an address corresponding to the input system ID, and

communication control means to control communication on the first network element and to send said first PDU along the network system;

wherein each network element of the other network elements on the network system comprises:

communication control means to control communication on the network element; and

address management control means to compare a system ID included in said first PDU received from said communication control means of said first network element with a system ID of said each network element, to assemble a second PDU including an address of said each network element, and to send said second PDU by said communication control means;

wherein said first network element further comprises:

address management control means to get an address of said second network element from said second PDU received by said communication control means, to assemble a third PDU for notifying a system ID and an address of said first network element, and to send said third PDU along the network system by said communication control means,

wherein said address management control means of said second network element further generates an address management Managed Object (MO) for said first network element based on information of said first network element included in said third PDU received by said communication control means, assembles a fourth PDU including in a system ID and an address of said second network element, and sends said fourth PDU, and

wherein said address management control means of said first network element becomes in an accessible state to said second network element by generating an address management MO for network elements added or changed based on information of said second network element included in said third PDU received by said communication control means.

25. (new) A network system according to claim 24, wherein said third PDU includes a system ID of said first network element, and said address management control means of said second network element generates said address management MO for said first network element by using an address and a system ID included in said third PDU, and

wherein said fourth PDU includes a system ID of said plurality of network elements added or changed, and said address management control means of said first network element generates said MO for said plurality of network elements added or changed by using an address and a system ID included in said fourth PDU.

26. (new) A network system according to claim 24, wherein said address included in said second PDU is a Network Service Access Point (NSAP) Address, and said address included in said third and fourth PDU is a Presentation Service Access Point (PSAP) address, whereby specification of said address management MO for first network element and said MO for second network element are based on specification of Open System Interconnection (OSI).

27. (new) A network system according to claim 24, wherein said address management control means of said first or second network element searches whether or not there is an address management MO corresponding to a network element which sends said third or fourth PDU when receiving said third or fourth PDU, generates a new address management MO if there is not, and generates a new address management MO after deleting an existing object if there is, when an address managed by said existing object is different with said address included in said third or fourth PDU as a result of comparison.